

Apply Evaluate Fluency Friday





Explore

Mastering Maths Skills and KIRFS

> Guided Practice

1. Mastering Maths Skills and KIRFS (See separate Mastering Maths Skills and separate KIRFS Shared Agreements document)

For the main maths lesson, teachers follow the White Rose small steps, although these can be more than one lesson where needed. Teacher's will make judgements on the need for a small step to be broken into multiple lessons to enable them to engineer success and a mastery learning experience for all children.

2. Explore

Overview: Anchor task- a carefully chosen problem, which sparks curiosity and introduces the lesson's learning (low floor, high ceiling, *Boaler*). The focus is on pupils varied representations and explanations.

Pupils: Through discussion, pupils work together to unpick the maths around the problem. **Teacher:** Circulates around the classroom, looking for opportunities for deeper questioning.

Supporting Adult: Circulates around the classroom, looking for opportunities for deeper questioning.

Resources: Pupils have access to a range of concrete resources that support pupils in understanding the concept.

3. Guided Practice

Overview: Teacher-led session. Teacher takes pupils onto the new learning through precise explanation and modelling. Representations are carefully selected to expose the structure of the concept being taught. High quality language and precise use of sentence stems to structure Maths talk will be used. Key vocabulary (as listed on the unit overviews) will be displayed on Maths working walls and the use will be modelled by both the teacher and children will also be expected to articulate this vocabulary in their responses.

Pupils: Have opportunities to try out the new learning, discuss and share methods. Pupils should use their Maths jotters to note any calculations or ideas. These are squared so children can still apply high standards of presentation and organisation to their work. Those pupils that have a good grasp of the concept being taught are able to move onto **Independent Practice** when ready.

Teacher: Precise explanation and modelling. Carefully planned questions to explore understanding.

Resources: Flipchart guides pupils through the sequence of learning using visual representations and conceptual variation. Pupils have red jotters to rehearse strategies modelled by the teacher. **Focussing on KIRF and a**

4. Independent Practice:

Overview: Pupil-led independence. Pupils practise the skills taught, solving carefully sequenced fluency and reasoning questions. These are planned with conceptual and/ or procedural variation in mind so that pupils develop their understanding of the concept. The teacher targets those learners who still have misconceptions/ misunderstanding (RI).

variety of arithmetic

calculations.

Main tasks are ambitious and aim high for all to achieve the learning objective. Where needed, this will involve seating, use of adults and additional equipment to dupport vunerable children who require additional support to be ready to access mastery learning opportunities.

Pupils: Complete carefully sequenced fluency and reasoning questions.

Teacher/ TA: I dentifies pupils with misconceptions and supports through focused group/ independence in eradicating these.

Resources: Conceptual and procedural questions increasing in challenge and exposing structure of the concept

5. Apply:

Overview: Pupil – led. Challenging non-routine problems are selected for pupils to apply the skills they have mastered throughout the lesson and develop higher-order thinking skills. This is through an open-ended task, with multiple possible solutions, or a number of increasingly challenging problems.

Pupils: Will be completing increasingly challenging problems, applying the skills through unfamiliar concepts.

Teacher/ TA: Identifies pupils with misconceptions and supports through focused group/ independence in eradicating these (same as above). Introduces the next step **Resources:** Questions that involve pupils applying the skills that have been taught throughout the session. Opportunities for links between concepts of mathematics are selected through a range of carefully structured problems.

6. Evaluate

Overview: Assessment for Learning carried out by the teacher, where the majority of this takes place through live marking during the lesson. In addition to this, through questioning, discussions with TA, marking and analysis of pupil outcomes, teachers evaluate how successfully pupils have mastered the concept taught and identify which (if any) misconceptions/misunderstanding still persist.

Teacher: Identifies those pupils who have not fully grasped the concept and delivers Rapid Intervention (RI). **Most RI should be able to happen in the lesson due to live marking from the teacher and the TA.** Through marking and feedback, supports pupils to identify and correct procedural errors and/or further challenge thinking. Adapts short term planning to ensure correctly pitched support and challenge.

Fluency Friday Maths Lessons

- ► Warm up A quick mental and oral session involving rapid recall of key facts, focussing on that half term's KIRF.
- ► Model Revisit any misconceptions from the previous week and teach through guided practice. This will include use of the jotters to children have opportunity to actively participate in the guided model.
- ► Independent task Children to complete the arithmetic test. During this time, both the teacher and the TA will actively circulate the room and will live mark to give children

chance to address and correct any errors in purple pen. Where needed, the teacher and TA will be able to use effective questions and modelling to support a child where they made need help to engineer success for them to achieve more during the session.

Review - Mark the tests together and feedback on any common misconceptions of general errors.

Where can we find resources to support planning?

- **NCETM** https://www.ncetm.org.uk/resources/49449
 - Primary Mastery Development Materials
 - Primary Assessment Materials
 - o Calculation Guidance Calculation Policy
 - White Rose Primary SOL <u>Maths LTP 2023 2024.docx</u> and Premium Resources: https://whiteroseeducation.com/
- Planpanion <u>https://www.planpanion.co.uk/</u>
- I See Reasoning Resources: <u>I See Reasoning Resources</u>
- Unit overviews on SharePoint: 2023-2024\Curriculum and teaching\Maths\Unit overviews
- KIRFS overview document <u>KIRFs Overview Document.docx</u> with suggested activities and strategies in the KIRFS folder on share point: <u>KIRFS</u>